

## REMARKS

The Office Action has been reviewed carefully and claims 1, 15 and 28 have been amended and claims 4-7 have been canceled in order to place the application in condition for allowance. No new matter has been added. In view of the foregoing amendments and following remarks, Applicant submits that claims 1, 8 -10, 15-19 and 28 are in condition for allowance.

### The Claimed Invention

The claimed invention is directed to a foliage colorant composition consisting essentially of humic acid, fulvic acid and a water soluble dye, whereby in use, the composition may be diluted with water to an aqueous form suitable for spraying onto foliage, wherein the water soluble dye consists of an acid blue dye and in use the composition imparts a green color to foliage.

### 35 U.S.C. § 103 Rejections

Claims 1, 4-10, 15-19 and 28 are rejected under 35 U.S.C. § 103(a) as being obvious over Drahos et al. in view of “From Rovral to Chipco, but always Green” (<http://www.bayer-science.co.uk/ChipcoGreenStory.pdf>). The Examiner asserts that Drahos et al. teach foliage sprays comprising humic or fulvic acids, urea, iron EDTA and water and the Rovral article teaches acid blue 9 colorant added to fungicides.

Applicant respectfully traverses this rejection and requests that the rejection be reconsidered and withdrawn for the following reasons.

Claims 1, 15 and 28 have been amended to recite that the water soluble dye consists of an acid blue dye which the composition when in use imparts a green color to foliage.

In contrast to the claimed invention, Drahos et al. disclose the use of foliage sprays comprising humic or fulvic acids, not a composition containing both humic acid and fulvic acid. With respect to the Rovral article, contrary to the Examiner’s understanding of the pertinent disclosure therein, “the greening up effect” that occurs relates to the natural green of the grass which, as explained in the article “this effect results from the suppression of certain fungi in the soil that cause winter stress. On their own such fungi do not cause disease symptoms but removing them allows the grass plant to thrive and we then see a healthier, greener plant” (page 2, 3<sup>rd</sup> paragraph).

Moreover and, more importantly, the Rovral article teaches that it is necessary to combine two dyes, acid blue 9 and a yellow dye, “which combined to turn the grey liquid Rovral into Rovral green” (page 2, paragraph 2).

The Examiner states that “when ingredients are well known and combined for their known properties, the combination is obvious absent unexpected results.”

Applicant points out that the surprising, unexpected, inventive feature of the claimed invention is that when only one dye, namely an acid blue dye, is combined with humic acid and fulvic acid, this composition when in use imparts a natural green color to foliage. Furthermore, humic acid and fulvic acid are not added to the claimed composition for their known properties as a soil supplement, but rather to enhance the effect of the blue dye to result in an unexpectedly natural green foliage colorant.

Applicant submits, therefore, that the Rovral article actually teaches away from the claimed invention, as it teaches the necessity to combine acid blue with yellow in order to obtain a green color. Furthermore, Applicant submits that one skilled in the art would not be motivated to combine the teachings of Drahos et al. with the Rovral article, which solely discloses the use of a blue dye, in order to obtain a green colorant for foliage.

Applicant respectfully submits, therefore, that neither Drahos et al. nor the Rovral article teaches or suggests the surprising foliage colorant composition of the claimed invention as claimed in claims 1, 15 and 28, in which the combination of humic acid, fulvic acid and an acid blue dye results in a green foliage colorant. The features of dependent claims 8-10 and 16-19 are not asserted as independently establishing patentability apart from the claim or claims from which they depend, and thus they too are deemed neither to be taught nor suggested by Drahos et al. and the Rovral article, either alone or in combination.

Claims 1, 4-10, 15-19 and 28 are rejected under 35 U.S.C. § 103(a) as being obvious over Drahos et al. in view of Forsyth et al. The Examiner asserts that Forsyth et al. teach the addition of 0.002% Hexacol Acid Blue 9 to fungicide compositions.

Drahos et al.’s disclosure is as described hereinabove. With respect to Forsyth et al., this reference discloses a buffered phosphorus solution in which 19 g of Hexacol Acid Blue 9 is added to 20 liters of water, which then is added to a phosphorus acid solution. The acid blue dye results in the solution having a light-blue color (column 4, line 23), not the surprising and unexpected green color of the claimed composition, when added in combination with humic and

fulvic acid. Furthermore, the addition of the dye is added solely for safety reasons, so as to distinguish the buffered phosphorus solution from water (column 4, line 23). Parenthetically, Applicant points out that the concentration of dye that is added would not in practice impart any significant color to foliage. Applicant submits that one skilled in the art would not be motivated to combine the teachings of Drahos et al. with Forsyth et al. in order to obtain a green colorant for foliage.

Applicant respectfully submits, therefore, that neither Drahos et al. nor Forsyth et al. teaches or suggests the surprising foliage colorant composition of the claimed invention as claimed in claims 1, 15 and 28, in which the combination of humic acid, fulvic acid and an acid blue dye results in a green foliage colorant. The features of dependent claims 8-10 and 16-19 are not asserted as independently establishing patentability apart from the claim or claims from which they depend, and thus they too are deemed neither to be taught nor suggested by Drahos et al. and Forsyth et al., either alone or in combination.

Claims 1, 4-7, 10, 15-17 and 28 are rejected under 35 U.S.C. § 103(a) as being obvious over Bessette in view of JP 62148405. The Examiner asserts that Bessette teaches herbicidal compositions comprising water, surface active agents, colorants and iron salts, and 2.5% humic/fulvic acids for application to weeds and grass; and that JP '405 teaches herbicidal compositions comprising colorants such as acid blue 1.

Applicant points out that nowhere in Bessette or JP '405 is there a teaching or a suggestion to combine humic acid and fulvic acid with an acid blue dye to obtain a green foliage colorant. Rather, Bessette teaches a herbicidal composition containing clove oil in which humic acid and fulvic acid can be added to serve as an adjuvant to the herbicide. With respect to JP '405, this reference also discloses a herbicidal composition in which a dye is added, such as acid blue. Such an addition of dye to the herbicidal composition no doubt is added to impart color to its herbicide for safety reasons so as to distinguish the herbicide from water. Applicant submits that one skilled in the art would not be motivated to combine the teachings of Bessette with JP '405 in order to obtain a green colorant for foliage.

Applicant respectfully submits, therefore, that neither Bessette nor JP '405 teaches or suggests the surprising foliage colorant composition of the claimed invention as claimed in claims 1, 15 and 28, in which the combination of humic acid, fulvic acid and an acid blue dye results in a green foliage colorant. The features of dependent claims 10, 16 and 17 are not

asserted as independently establishing patentability apart from the claim or claims from which they depend, and thus they too are deemed neither to be taught nor suggested by Bessette and JP '405, either alone or in combination.

In view of the foregoing amendments and remarks, it is respectfully submitted that all pending claims 1, 8-10, 15-19 and 28 in the present application are patentable over the cited prior art. Accordingly, reconsideration and withdrawal of the rejections and an early Notice of Allowance are respectfully requested.

Respectfully submitted,



Gwen R. Acker Wood, Ph.D., J.D.  
Registration No. 51,027  
Attorney for Applicant  
412-566-6085  
[gwood@eckertseamans.com](mailto:gwood@eckertseamans.com)